



PATENT IN0117

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of:

Zhu *et al*

Application No.: 10/013,071

Filed: December 10, 2001

For:

DIARYL PEPTIDES AS NS3-SERINE PROTEASE INHIBITORS OF HEPATITIS C VIRUS

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

It is requested that the following documents cited in the application, as listed below and in the accompanying form PTO-1449, be considered and made of record.

Documents cited in the Application:

U.S. 5,712,145
WO 89/04669
WO 98/17679
WO 98/22496
WO 99/07734
WO 00/09558
WO 00/09543
EP 381 216

Publications:

Pizzi *et al.* (1994) *Proc. Natl. Acad. Sci (USA)* 91:888-892
Failla *et al.* (1996) *Folding & Design* 1:35-42
Kollykhalov *et al.* (1994) *J. Virol.* 68:7525-7533
Komoda *et al.* (1994) *J. Virol.* 68:7351-7357
Landro *et al.* (1997) *Biochem.* 36:9340-9348
Ingallinella *et al.* (1998) *Biochem.* 37:8906-8914
Llinàs-Brunet *et al.* (1998) *Bioorg. Med. Chem. Lett.* 8:1713-1718
Martin *et al.* (1998) *Biochem.* 37:11459-11468
Dimasi *et al.* (1997) *J. Virol.* 71:7461-7469
Martin *et al.* (1997) *Protein Eng.* 10:607-614
Elzouki *et al.* (1997) *J. Hepat.* 27:42-48



BioWorld Today 9(217): 4 (November 10, 1998)
Berenguer et al. (1998) *Proc. Assoc. Am. Physicians* 110(2):98-112
Hoofnagle et al. (1997) *N. Engl. J. Med.* 336:347
R. Zhang et al, *Analytical Biochemistry*, 270 (1999) 268-275
D. L. Sali et al, *Biochemistry*, 37 (1998) 3392-3401
K. Barlos et al, *Int. J. Pept. Protein Res.*, 37 (1991), 513-520
K. Holmberg et al, *Acta Chem. Scand.*, B33 (1979) 410-412
A. Marchetti et al, *Synlett.*, S1 (1999) 1000-1002
W. Han et al, *Bioorganic & Biomedical Chem Lett.*, 10 (2000) 711-713
S. Agrawal et al, "Development and Characterization of Hepatitis C Virus Serine
Protease Cell-based Trans-Cleavage Assay", *Hepatology* Supplement to Volume 30 (No. 4,
Part 2, October 1999), *Abstract No. 615* (Proceedings of AASLD 50th Annual Meeting,
Dallas, Texas, November 5-9, 1999.
L. Hughes, *Org. Reactions*, 42 (1992) 335.
R. F. Heck, *Org. Reactions*, 27 (1989) 345-390.

The submission of these documents is not to be presumed as an admission that these documents are prior art. The documents are being furnished solely for their possible utility in the examination of the present case. Since no Office Action has issued on the merits of this case, Applicants believe that no fee is due at this time. If, however, any fees are due, the Office may charge such fees to Deposit Account No. 19-0365.

If the Examiner has any questions, the Examiner is invited to contact the undersigned.

April 12, 2002
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Respectfully submitted,

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I hereby certify that this correspondence
is being deposited with the U.S. Postal
Service as First Class Mail in an envelope
addressed to Assistant Commissioner for
Patents, Washington, D.C. 20231 on

April 12, 2002

Palaiyur S. Kalyanaraman
Registered Representative

Signature and Date of Signature

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Sheet 1 of 1
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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.:

SERIAL NO.:

IN01174

10/013,071

INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

APPLICANT

Zhu, et al

FILING DATE:

GROUP:

December 10, 2001

1614

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE IF APPROPRIATE |
|----------------------|--------------------|------|------|-------|---------------|-------------------------------|
| AA | U.S. 5,712,145 | | | | | |
| AB | | | | | | |

FOREIGN PATENT DOCUMENTS

| | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION YES NO |
|----|--------------------|------|---------|-------|---------------|-----------------------|
| AC | WO 89/04669 | | | | | |
| AD | WO 98/17679 | | | | | |
| AE | WO 98/22496 | | | | | |
| AF | WO 98/07734 | | | | | |
| AG | WO 00/09558 | | | | | |
| AH | WO 00/09543 | | | | | |
| AI | EP 381 216 | | | | | |
| AJ | | | | | | |
| AK | | | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

| | |
|----|--|
| AL | Pizzi, (1994) <i>Proc. Natl. Acad. Sci(USA)</i> 91:888-892 |
| AM | Failla (1996) <i>folding & Design</i> 1:35-42 |
| AN | Kollykhalov (1994) <i>J. Virol.</i> 68:7525-7533 |
| AO | Komoda (1994) <i>J. Virol.</i> 68:7351-7357 |
| AP | Landro (1997) <i>Biochem</i> 36:9340-9348 |
| AQ | Ingallinella (1998) <i>Biochem</i> 37:8906-8914 |
| AR | Llinas-Brunet (1998) <i>Bioorg. Med. Chem. Lett.</i> 8:1713-1718 |
| AS | Martin (1998) <i>Biochem</i> 37:11459-11468 |
| AT | Dimasi (1997) <i>J. Virol.</i> 71:7461-7469 |
| AU | Martin (1997) <i>Protein Eng.</i> 10:607-614 |
| AV | Elzouki (1997) <i>J. Hepat.</i> 27:42-48 |
| AW | <i>Bio World Today</i> 9(217): 4 (November 10, 1998) |
| AX | Berenguer (1998) <i>Proc. Assoc. Am. Physicians</i> 110(2): 98-112 |
| AY | Hoofnagle (1997) <i>New England Journal Med.</i> 336:347 |
| AZ | Zhang (199) <i>Analytical Biochemistry</i> 270:268-275 |
| BA | Sali (1998) <i>Biochemistry</i> 3392-3401 |
| BB | Barlos (1991) <i>Int. J. Pept. Protein Res</i> 513-520 |
| BC | Holmberg (1979) <i>Acta Chem. Scand.</i> , B33:410-412 |
| BD | Agrawal(1999) <i>Hepatology</i> Supplement to Vol 30 "Development and Characterization of Hepatitis C Virus Serine Protease Cell-based Trans-Cleavage Assay" |
| BE | Hughes (1992) <i>Org. Reactions</i> 42:335 |
| BF | Heck (1989) <i>Org. Reactions</i> 27:345-390 |
| BG | Han, (2000) <i>Bioorganic & Medicinal Chemistry Letters</i> 10 " α -Ketoamides, α -Ketoesters and α -Kiketones as HCV NS3 Protease Inhibitors" pp. 711-713. |
| BH | Marchetti(1999) <i>Synlett</i> , Vol. S1, "Synthesis of Two Novel Cyclic Biphenyl Ether Analogs of an Inhibitor of HCV NS3 Protease", pp 1000-1002. |

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.